National Institute of Environmental Health Sciences

Epidemiology and vector efficiency during a dengue fever outbreak in Cixi, Zhejiang Province, China

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Abstract:

An emigrant worker returning from Southeast Asia triggered the outbreak of a DF epidemic in Zhejiang province, China, in October, 2004. Eighty-three cases, mainly young and middle-aged people between 20 and 50 (78.3%), were reported in the area of Cixi. There were no obvious occupational patterns. The majority of cases were female, with a sex ratio of 1:1.86 (m:f). The dengue virus (DENV) strains from the epidemic area were isolated and identified as DENV-1, which belongs to Asian strain 1. According to the epidemiological investigation, the incidence of DF had no relationship to temperature, humidity, or precipitation, and the Breteau index of larvae showed a clear relationship only with the House Index and Container Index. Recent dengue problems in the town have been associated with the complex social factors and hygienic conditions for endemic villagers and immigrant workers. Some hygienic measures should be taken by the local government to reduce the risk of mosquito-borne disease. These measures should aim to eliminate the breeding sites of the vector Aedes albopictus in indoor and outdoor containers filled with rainwater and thus reducing the risk of DF transmission.

Source: http://dx.doi.org/10.1111/j.1948-7134.2009.00018.x

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Human Conflict/Displacement, Meteorological Factors, Precipitation, Temperature

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: China

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Vectorborne Disease

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Dengue

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content